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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,754	11/25/2003	Sang-hoon Hyen	1293.1938	2763

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EXAMINER

GUPTA, PARUL H

ART UNIT PAPER NUMBER

2627

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/720,754	HYEN, SANG-HOON	
	<b>Examiner</b>	<b>Art Unit</b>	
	Parul Gupta	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15 is/are allowed.
- 6) ☒ Claim(s) 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-16 are pending for examination as interpreted by the examiner. The IDS filed 4/27/05 was considered for this application.

#### ***Drawings***

2. The drawings are objected to because the present drawings are informal due to the omission of the term "prior art" in figure 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because this application is in condition for allowance. Applicant is advised to

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employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 16 is rejected under 35 U.S.C. 102(e) as being anticipated by Horibata et al., US Patent 6,678,226.

Horibata et al. teaches an optical disc (shown in figure 2) comprising: a substrate having a plurality of areas identified by onto which data is recordable; first data record recorded at an area identified by a write start address upon determining that an area of the write start address has a defect (column 10, lines 63 - column 11, line 5); and second data recorded at one of an area identified by a write start address upon determining that an area of the write start address does not have a defect and an area identified by a replacement write start address upon recording the first data (column 10, lines 41-44 and 61-62), wherein the first data is previously-generated dummy data.

***Allowable Subject Matter***

4. Claims 1, 6, 10, 11, and 13 are allowed. The following is an examiner's statement of reasons for allowance: claims 1, 6, 10, 11, and 13 are allowed over the prior art

because of the references cited in the record, considered in combination or alone, fail to suggest or fairly teach disabling and enabling a register that checks the stability of servo control signals that includes all of the limitations as recited in claims 1, 6, 10, 11, 13, and 16. All other claims are allowed with their respective allowable parent claims.

5. Regarding claim 1, the closest prior art of record is Horibata et al., US Patent 6,678,226. Horibata et al. discloses a method of recording data in a defective area of an optical storage medium, the method comprising: detecting a write start address in response to a write command (given by "system controller 101" as described in column 8, lines 40-42 and column 9, lines 5-10); checking, when the write start address is not detected during the detection of the write start address, whether a specific area at the write start address is a defective area (column 9, lines 25-32); continuing to detect the write start address when the specific area is determined to be a defective area (column 9, lines 55-64); recording previously-generated data in the specific area when the write start address is detected (column 10, lines 63 - column 11, line 5); determining a replacement address for the write start address (column 10, lines 41-44); and recording data at the replacement address (column 10, lines 61-62). However, the reference fails to disclose the given method of recording data in a defective area of an optical storage medium comprising all of the limitations in combination set forth in the claim, specifically including the steps of disabling a register which checks whether the servo control signals are stable when the specific area is determined to be the defective area and enabling the register which checks whether the servo control signals are stable. In

addition, the stability of servo control signals is not used to determine whether or not an address is defective. Claims 2-5 are allowed as being dependent on claim 1.

6. Regarding claim 6, the closest prior art of record is Horibata et al., US Patent 6,678,226. Horibata et al. discloses an apparatus for recording data in a defective area of a CD-RW (figure 1), comprising: a pickup that records data on the CD-RW (104); a record signal processor (108 and 110) that converts an external signal into recordable data and sends the recordable data to the pickup; a servo that controls servo operations for recording the data processed by the record signal processor on the CD-RW (114); and a controller (101) that detects the write start address, generates data and causes the pickup to record the generated data at the write start address (see explanation for claim 1). However, the reference fails to disclose the given apparatus that disables a register which checks whether the servo operations are stable when an unavailable area is detected during detection of a write start address, enables the register, and causes the pickup to record the data at a replacement address that is a substitute for the write start address. Claims 7-9 are allowed as being dependent on claim 6.

7. Regarding claim 10, the closest prior art of record is Horibata et al., US Patent 6,678,226. Horibata et al. discloses a computer readable storage medium encoded with processing instructions for performing a method of recording data in a defective area of an optical storage medium (figure 2), the method comprising: detecting a write start address in response to a write command (given by "system controller 101" as described in column 8, lines 40-42 and column 9, lines 5-10); checking, when the write start address is not detected during the detection of the write start address, whether a

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specific area at the write start address is a defective area (column 9, lines 25-32); continuing to detect the write start address when the specific area is determined to be a defective area (column 9, lines 55-64); recording previously-generated data in the specific area when the write start address is detected (column 10, lines 63 - column 11, line 5); determining a replacement address for the write start address (column 10, lines 41-44); and recording data at the replacement address (column 10, lines 61-62). However, the reference fails to disclose the given method of recording data in a defective area of an optical storage medium comprising all of the limitations in combination set forth in the claim, specifically including the steps of disabling a register which checks whether the servo control signals are stable when the specific area is determined to be the defective area and enabling the register which checks whether the servo control signals are stable. In addition, the stability of servo control signals is not used to determine whether or not an address is defective.

8. Regarding claim 11, the closest prior art of record is Horibata et al., US Patent 6,678,226. Horibata et al. discloses a controller for use in an apparatus having a pickup for recording data as in a defective area of a CD-RW (element 101 of figure 1), the controller comprising: a write start address detector that detects a write start address (column 6, lines 51-56); a data generator that generates generated data, the generated data being sent to the pickup to be recorded at the write start address (column 6, lines 35-46); a replacement write start address determiner that determines a replacement write start address that is a substitute for the write start address and replaces the write start address with the replacement write start address (necessary to execute step ST23

of figure 10); and a data recording initiator that causes data to be sent to the pickup to be recorded at the replacement write start address after a replacement write start address is determined (necessary to execute step ST26 of figure 10). However, the reference fails to disclose the given controller used in an apparatus for recording data in a defective area of an optical storage medium comprising all of the limitations in combination set forth in the claim, specifically including a register enabler/disabler that disables and enables a register which checks whether servo operations are stable or unstable, wherein the register enabler/disabler disables the register when a defect is detected at the write start address and enables the register after the generated data is recorded at the replacement write start address. Claim 12 is allowed as being dependent on claim 11.

9. Regarding claim 13, the closest prior art of record is Horibata et al., US Patent 6,678,226. Horibata et al. discloses a method of recording data in a defective area of an optical storage medium, the method comprising: detecting a write start address (column 9, lines 5-10); checking whether an area at the write start address has a defect (column 9, lines 25-32); recording previously-generated data at the write start address (column 10, lines 63 - column 11, line 5); determining a replacement write start address after the previously-generated data is recorded (column 10, lines 41-44); recording data the replacement address (column 10, lines 61-62). However, the reference fails to disclose the given method of recording data in a defective area of an optical storage medium comprising all of the limitations in combination set forth in the claim, specifically including the steps of disabling the register while continuing to detect the write start



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address upon determining that an area of the write start address has a defect and enabling the register after the previously-generated data is recorded. In addition, a register is not used to determine whether or not an address is defective. Claims 14-15 are allowed as being dependent on claim 13.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Parul Gupta whose telephone number is 571-272-5260. The examiner can normally be reached on Monday through Thursday, from 8:30 AM to 7 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PHG  
8/14/06

  
ANDREA WELLINGTON  
SUPERVISORY PATENT EXAMINER